



# Microduct Assembly, Heavy-duty, 16/12 mm with Tracer

TWD, Heavy-duty, 16/12 mm 2-4 -way Tr, S12

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## Features

- Extra Heavy-duty design for direct buried installation
- UV protected for above ground use
- Double sheathed
- 2 or 4 sub-duct options
- 16/12 mm microduct system
- Low friction rilled inner surface for maximum installation lengths
- Integrated tracer wire

## Application

The tight protected duct assemblies consist of a number of microducts with an inner low friction surface that enables air-blown installation of fiber optic micro cables. The inner surface of the microducts have longitudinal grooves for improved blowing performance.

The duct assemblies are bundled with double UV-resistant PE sheaths. This makes the ducts extra durable for direct installation into ground or above ground installation. The ducts are suitable for installation of micro cables.

The duct is classed for above ground and underground use according to heavy duty application norm SRE-P.

## Design

The duct assemblies are available in several configurations from 2 to 4 microducts.

16/12 mm microducts are optimized for installation of micro cables and nano cables. The microducts have a low-friction inner surface with longitudinal grooves for best blowing performance.

The tracer wire is made of an isolated copper wire, 18 AWG.

## Product Information

Microducts and outer sheath: HDPE

Tracer Wire

**Microduct assemblies:** 18 AWG (0.8 mm<sup>2</sup>)

**Material:** Isolated, stranded copper

## Technical Information

<b>Color Code</b>	S12
<b>Temperature, Operation [°C]</b>	-40 to +60
<b>Temperature, Storage [°C]</b>	-40 to +60
<b>Temperature, Installation [°C]</b>	-20 to +50

**Conformance**

- Abrasion:** IEC 60794-1-2-E2B(1)
- Kink:** IEC 60794-1-2-E10, 20 x outer diameter
- Impact:** IEC 60794-1-2-E4
- Crush:** IEC 60794-1-2-E3
- Tensile:** IEC 60794-1-2-E
- Bend:** IEC 60794-1-2-E11A
- Torsion:** IEC 60794-1-2-E
- Flexibility:** IEC 60794-1-2-E8
- Inner Clearance:** IEC 60794-5-20, IEC 60794-5-10, Ann. D
- Protection:** SRE-P

**Marking**

Duct assemblies have markings showing the tube length.  
 The individual microducts are numbered and also identified by their color and position in the bundle according to the S12 standard.

**Technical Details**

S12 Mikrodot 1-12 Microducts 1-12	1	2	3	4	5	6	7	8	9	10	11	12	
	Orange	Gul Yellow	Röd Red	Vit White	Grön Green	Violett Violet	Blå Blue	Grå Grey	Turkos Turquoise	Svart Black	Brun Brown	Rosa Pink	
	S12 Mikrodot 1-24 Microducts 1-24	1	2	3	4	5	6	7	8	9	10	11	12
		Orange 1	Gul 1 Yellow 1	Röd 1 Red 1	Vit 1 White 1	Grön 1 Green 1	Violett 1 Violet 1	Blå 1 Blue 1	Grå 1 Grey 1	Turkos 1 Turquoise 1	Svart 1 Black 1	Brun 1 Brown 1	Rosa 1 Pink 1
		13	14	15	16	17	18	19	20	21	22	23	24
		Orange 2	Gul 2 Yellow 2	Röd 2 Red 2	Vit 2 White 2	Grön 2 Green 2	Violett 2 Violet 2	Blå 2 Blue 2	Grå 2 Grey 2	Turkos 2 Turquoise 2	Svart 2 Black 2	Brun 2 Brown 2	Rosa 2 Pink 2

S12 Color Code Chart for Microduct Assemblies

**Articles 40**

Article name	Color	Layout	Bend Radius [mm]	Tensile Force, Installation [N]	Crush [N/100 mm]	Impact [J]	Dimensions [mm]	Weight [kg/km]	Form of Delivery
<b>Microduct SRE-P 2x16/12 S12 BK, Tr</b> MPB30298/2M	Black	2x16/12	220	4000	9000	45	22 x 38	430	–
<b>Microduct SRE-P 2x16/12 S12 BK, Tr, 1000m</b> MPB30298/2M-1	Black	2x16/12	220	4000	9000	45	22 x 38	430	1000
<b>Microduct SRE-P 2x16/12 S12 BK, Tr, 500m</b> MPB30298/2M-2	Black	2x16/12	220	4000	9000	45	22 x 38	430	500

Article name	Color	Layout	Bend Radius [mm]	Tensile Force	Crush Force, Installation [N]	Impact [J]	Dimensions [mm]	Weight [kg/km]	Form of Delivery
Microduct SRE-P 2x16/12 S12 OG, Tr 0/MPB30298/2M	Orange	2x16/12	220	4000	9000	45	22 × 38	430	–
Microduct SRE-P 2x16/12 S12 OG, Tr, 1000m 0/MPB30298/2M-1	Orange	2x16/12	220	4000	9000	45	22 × 38	430	1000
Microduct SRE-P 2x16/12 S12 OG, Tr, 500m 0/MPB30298/2M-2	Orange	2x16/12	220	4000	9000	45	22 × 38	430	500
Microduct SRE-P 2x16/12 S12 GN, Tr 1/MPB30298/2M	Green	2x16/12	220	4000	9000	45	22 × 38	430	–
Microduct SRE-P 2x16/12 S12 GN, Tr, 1000m 1/MPB30298/2M-1	Green	2x16/12	220	4000	9000	45	22 × 38	430	1000
Microduct SRE-P 2x16/12 S12 GN, Tr, 500m 1/MPB30298/2M-2	Green	2x16/12	220	4000	9000	45	22 × 38	430	500
Microduct SRE-P 2x16/12 S12 RD, Tr 2/MPB30298/2M	Red	2x16/12	220	4000	9000	45	22 × 38	430	–
Microduct SRE-P 2x16/12 S12 RD, Tr, 1000m 2/MPB30298/2M-1	Red	2x16/12	220	4000	9000	45	22 × 38	430	1000
Microduct SRE-P 2x16/12 S12 RD, Tr, 500m 2/MPB30298/2M-2	Red	2x16/12	220	4000	9000	45	22 × 38	430	500
Microduct SRE-P 2x16/12 S12 YE, Tr 4/MPB30298/2M	Yellow	2x16/12	220	4000	9000	45	22 × 38	430	–
Microduct SRE-P 2x16/12 S12 YE, Tr, 1000m 4/MPB30298/2M-1	Yellow	2x16/12	220	4000	9000	45	22 × 38	430	1000
Microduct SRE-P 2x16/12 S12 YE, Tr, 500m 4/MPB30298/2M-2	Yellow	2x16/12	220	4000	9000	45	22 × 38	430	500
Microduct SRE-P 2x16/12 S12 WH, Tr 5/MPB30298/2M	White	2x16/12	220	4000	9000	45	22 × 38	430	–
Microduct SRE-P 2x16/12 S12 WH, Tr, 1000m 5/MPB30298/2M-1	White	2x16/12	220	4000	9000	45	22 × 38	430	1000
Microduct SRE-P 2x16/12 S12 WH, Tr, 500m 5/MPB30298/2M-2	White	2x16/12	220	4000	9000	45	22 × 38	430	500
Microduct SRE-P 2x16/12 S12 PK 7/MPB30298/2M	Pink	2x16/12	220	4000	9000	45	22 × 38	430	500
Microduct SRE-P 2x16/12 S12 TQ 11/MPB30298/2M	Turquoise	2x16/12	220	4000	9000	45	22 × 38	430	500
Microduct SRE-P 2x16/12 S12 TQ, 1000m 11/MPB30298/2M-1	Turquoise	2x16/12	220	4000	9000	45	22 × 38	430	1000
Microduct SRE-P 2x16/12 S12 TQ, 500m 11/MPB30298/2M-2	Turquoise	2x16/12	220	4000	9000	45	22 × 38	430	500
Microduct SRE-P 4x16/12 S12 BK, Tr MPB30298/4M	Black	4x16/12	380	6500	4000	40	38 × 38	705	–
Microduct SRE-P 4x16/12 S12 BK, Tr, 1000m MPB30298/4M-1	Black	4x16/12	380	6500	4000	40	38 × 38	705	1000
Microduct SRE-P 4x16/12 S12 BK, Tr, 500m MPB30298/4M-2	Black	4x16/12	380	6500	4000	40	38 × 38	705	500
Microduct SRE-P 4x16/12 S12 GN, Tr, 1000m 1/MPB30298/4M-1	Green	4x16/12	380	6500	4000	40	38 × 38	705	1000

Article name	Color	Layout	Bend Radius [mm]	Tensile Force [N]	Crush [N/100 mm]	Installation [N]	Impact [J]	Dimensions [mm]	Weight [kg/km]	Form of Delivery
Microduct SRE-P 4x16/12 S12 GN, Tr, 500m 1/MPB30298/4M-2	Green	4x16/12	380	6500	4000	40	38 × 38	705	500	
Microduct SRE-P 4x16/12 S12 RD, Tr 2/MPB30298/4M	Red	4x16/12	380	6500	4000	40	38 × 38	705	–	
Microduct SRE-P 4x16/12 S12 RD, Tr, 1000m 2/MPB30298/4M-1	Red	4x16/12	380	6500	4000	40	38 × 38	705	1000	
Microduct SRE-P 4x16/12 S12 RD, Tr, 500m 2/MPB30298/4M-2	Red	4x16/12	380	6500	4000	40	38 × 38	705	500	
Microduct SRE-P 4x16/12 S12 YE, Tr 4/MPB30298/4M	Yellow	4x16/12	380	6500	4000	40	38 × 38	705	–	
Microduct SRE-P 4x16/12 S12 YE, Tr, 1000m 4/MPB30298/4M-1	Yellow	4x16/12	380	6500	4000	40	38 × 38	705	1000	
Microduct SRE-P 4x16/12 S12 YE, Tr, 500m 4/MPB30298/4M-2	Yellow	4x16/12	380	6500	4000	40	38 × 38	705	500	
Microduct SRE-P 4x16/12 S12 PK, Tr 7/MPB30298/4M	Pink	4x16/12	380	6500	4000	40	38 × 38	705	–	
Microduct SRE-P 4x16/12 S12 PK, Tr, 1000m 7/MPB30298/4M-1	Pink	4x16/12	380	6500	4000	40	38 × 38	705	1000	
Microduct SRE-P 4x16/12 S12 PK, Tr, 500m 7/MPB30298/4M-2	Pink	4x16/12	380	6500	4000	40	38 × 38	705	500	
Microduct SRE-P 4x16/12 S12 TQ, Tr 11/MPB30298/4M	Turquoise	4x16/12	380	6500	4000	40	38 × 38	705	–	
Microduct SRE-P 4x16/12 S12 TQ, Tr, 1000m 11/MPB30298/4M-1	Turquoise	4x16/12	380	6500	4000	40	38 × 38	705	1000	
Microduct SRE-P 4x16/12 S12 TQ, Tr, 500m 11/MPB30298/4M-2	Turquoise	4x16/12	380	6500	4000	40	38 × 38	705	500	
Microduct SRE-P 7x16/12 S12 BK, Tr, 500m MPB30298/7M-2	Black	4x16/12	–	–	–	–	–	–	500	